

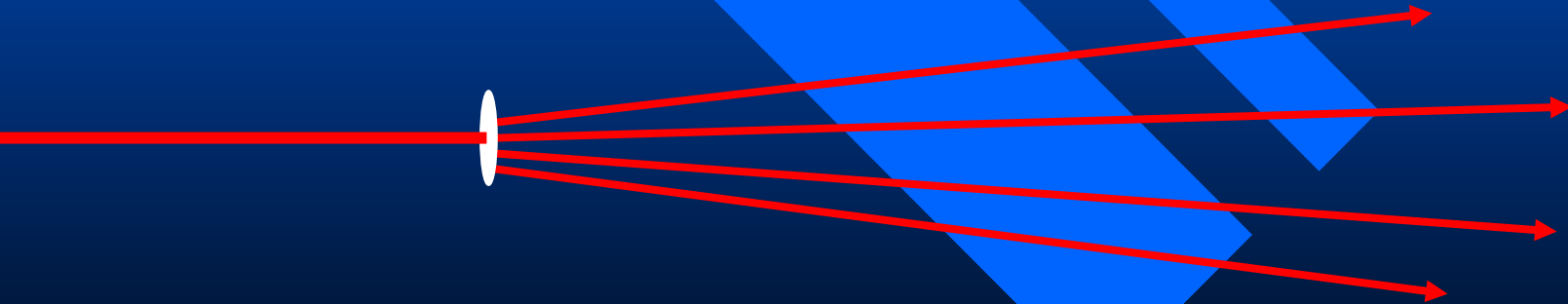


2003 Naval-Industry Partnership Conference



Lighting the Way for Innovation:

A case study in commercial technology
insertion into the DoD





Three Tenets to Success

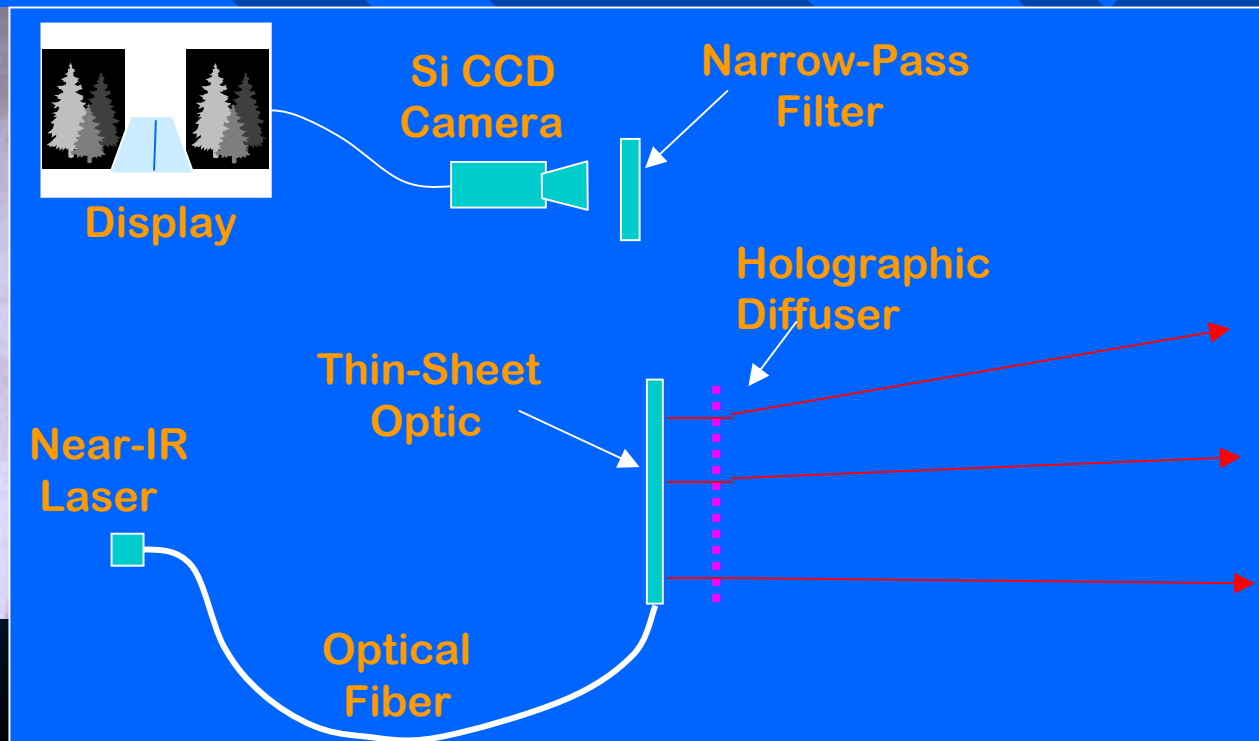
- Low cost, utilizing existing resources (test sites & personnel)
- Multi-service involvement (Marines, Navy, & Army to date)
- Remember the Soldier/Sailor: to gain input of the end user and understand the most effective path to weaponization

Technology Overview

- Laser Diode Night Vision (LDNV) couples an eye safe near-infrared light source (a spotlight in the non-visible spectrum) with low cost commercial video equipment
- The technology is capable of efficiencies in the 50%+ range, over 10 times that of conventional light sources!



20W Unit





Tactical Considerations

US Army Use Case



- Force protection
- Active vs. Passive

The tested use case of Army Checkpoint Operations falls under this umbrella

Comparison at 50ft

- The PVS-7 Goggles display a human figure and rifle
- The Laser Diode Illuminator images reveal a clearer picture of the subjects as well as signature camouflage markings



Army PVS-7 night vision goggles



Laser Diode Illuminator



Comparison @ 400ft

- The PVS-7 only reveals a human target
- The Laser Diode Illuminator clearly displays a human figure with a rifle, and signature camouflage markings



Army PVS-7 Night Vision
Goggles



Laser Diode Illuminator



Comparison @ 1000ft

- The PVS-7 reveals an almost unnoticeable form in the distance
- The Laser Diode Illuminator still displays a human figure with a rifle, as well as camouflage signature



Army PVS-7 Night Vision
Goggles



Laser Diode Illuminator



Panorama of PVS-7 in conjunction with the Illuminator

- The PVS-7 Goggles are exercised in full panorama 100ft from the Illuminator
- Demonstrates the technology can be exercised as an asset or detriment to US Forces



Illuminator positioned behind PVS-7, complements clarity



PVS-7 directed at Illuminator, washes out image



Key Takeaways

- Remember the soldier
- Break down barriers to innovation, this is what we're all here to do!
- Naval-Industry R&D Partnership is not a 2 day event in August, it should be an everyday occurrence, make it happen!